

**IN THE CLAIMS:**

- 1 1. (Original) A fuel for a direct methanol fuel cell comprising:  
2 methanol, and  
3 an effective amount of an additive that undergoes a reaction with water to produce  
4 small molecules that are easily electro oxidized.
- 1 2. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the addi-  
2 tive is dimethyloxymethane.
- 1 3. (Original) A fuel for a direct methanol fuel cell as in claim 2, wherein the fuel  
2 comprises about 20 mole percent dimethyloxymethane.
- 1 4. (Original) A fuel for a direct methanol fuel cell as in claim 3 further comprising  
2 less than about .1% by weight of an indicating dye.
- 1 5. (Original) A fuel for a direct methanol fuel cell as in claim 4 where the indicating  
2 dye includes sulfonated activated carbon particles.
- 1 6. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the addi-  
2 tive is methylorthoformate.
- 1 7. (Original) A fuel for a direct methanol fuel cell as in claim 6, wherein the fuel  
2 comprises about 10 mole percent methylorthoformate.
- 1 8. (Original) A fuel for a direct methanol fuel cell as in claim 7 further comprising  
2 less than about .1% by weight of an indicating dye.

- 1 9. (Original) A fuel for a direct methanol fuel cell as in claim 8 where the indicating  
2 dye includes sulfonated activated carbon particles.
- 1 10. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the additive  
2 is tetramethylorthocarbonate.
- 1 11. (Original) A fuel for a direct methanol fuel cell as in claim 10, wherein the fuel  
2 comprises about 10 mole percent tetramethylorthocarbonate.
- 1 12. (Original) A fuel for a direct methanol fuel cell as in claim 11 further comprising  
2 less than about .1% by weight of an indicating dye.
- 1 13. (Original) A fuel for a direct methanol fuel cell as in claim 12 where the indicat-  
2 ing dye includes sulfonated activated carbon particles.
- 1 14. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the addi-  
2 tive is trimethylborate.
- 1 15. (Original) A fuel for a direct methanol fuel cell as in claim 14, wherein the fuel  
2 comprises about 7 mole percent trimethylborate.
- 1 16. (Original) A fuel for a direct methanol fuel cell as in claim 15 further comprising  
2 less than about .1% by weight of an indicating dye.
- 1 17. (Original) A fuel for a direct methanol fuel cell as in claim 16 where the indicat-  
2 ing dye includes sulfonated activated carbon particles.
- 1 18. (Original) A fuel for a direct methanol fuel cell as in claim 1 wherein the addi-  
2 tive is tetramethylorthosilicate.

- 1 19. (Original) A fuel for a direct methanol fuel cell as in claim 18, wherein the fuel  
2 comprises about 5 mole percent tetramethylorthosilicate.
- 1 20. (Original) A fuel for a direct methanol fuel cell as in claim 19 further comprising  
2 less than about .1% by weight of an indicating dye.
- 1 21. (Original) A fuel for a direct methanol fuel cell as in claim 20 where the indicat-  
2 ing dye includes sulfonated activated carbon particles.
- 1 22. (Original) A fuel for a direct methanol fuel cell comprising:  
2 methanol; and  
3 at least one additive that undergoes a reaction with water to produce small mole-  
4 cules that are easily electro oxidized selected from the group consisting of: di-  
5 methyloxymethane, methylorthoformate, tetramethyl orthocarbonate, trimethyl  
6 borate, and tetramethyl orthosilicate.
- 1 23. (Original) A fuel for a direct methanol fuel cell as in claim 22 further comprising  
2 less than about .1% by weight of an indicating dye.
- 1 24. (Original) A fuel for a direct methanol fuel cell as in claim 23 where the indicat-  
2 ing dye includes sulfonated activated carbon particles.
- 1 25. (Original) A fuel additive for a direct methanol fuel cell consisting essentially of  
2 at least one additive that undergoes a rapid reaction with water to produce small mole-  
3 cules that are easily electro oxidized selected from the group consisting of: dimethyloxy-  
4 methane, methylorthoformate, tetramethyl orthocarbonate, trimethyl borate, and tetrame-  
5 thyl orthosilicate; and an effective amount of an indicating dye.

- 1    26.    (Original) A fuel for a direct methanol fuel cell comprising:  
2            methanol, and  
3            an effective amount of a metal hydride.
- 1    27.    (Original) A fuel for a direct methanol fuel cell comprising:  
2            methanol;  
3            an effective amount of an additive that undergoes a reaction with water to produce  
4            small molecules that are easily electro oxidized; and  
5            an effective amount of a metal hydride.
- 1    28.    (Original) A fuel for a direct methanol fuel cell comprising:  
2            methanol; and  
3            an effective amount of at least one additive that undergoes a reaction with water  
4            to produce small molecules that are easily electro oxidized selected from the group con-  
5            sisting of: dimethyloxymethane, methylorthoformate, tetramethyl orthocarbonate, tri-  
6            methyl borate, and tetramethyl orthosilicate; and  
7            an effective amount of a metal hydride.
- 1    29.    (Withdrawn) A method for enabling the detection of fuel leaking from a fuel cell  
2            comprising the step of adding a dye to the fuel.
- 1    30.    (Withdrawn) A method for enabling detection of fuel leaking from the fuel cell  
2            according to claim 29 where the dye comprises sulfonated activated carbon particles.
- 1    31.    (Original) The method of preparing a fuel mixture for a direct methanol fuel cell  
2            comprising the steps of:  
3            a)        providing a supply of concentrated methanol; and  
4            b)        adding an effective amount of at least one additive that undergoes a reac-  
5                    tion with water to produce small molecules that are easily electro oxidized

6                   selected from the group consisting of: dimethyloxymethane, methylortho-  
7                   formate, tetramethyl orthocarbonate, trimethyl borate, and tetramethyl or-  
8                   thosilicate.

1   32.    (Original) The method of preparing a fuel mixture for a direct methanol fuel cell  
2   as in claim 30 further comprising the step of :

3           c)    providing a supply of concentrated methanol; and  
4   adding an effective amount of at least one metal hydride selected from the group consist-  
5   ing of  $\text{LiAlH}_4$ ,  $\text{NaBH}_4$ ,  $\text{LiBH}_4$ ,  $(\text{CH}_3)_2\text{NHBH}_3$ ,  $\text{NaAlH}_4$ ,  $\text{B}_2\text{H}_6$ ,  $\text{NaCNBH}_3$ ,  $\text{CaH}_2$ ,  $\text{LiH}$ ,  
6    $\text{NaH}$ ,  $\text{KH}$  and sodium bis (2-methoxyethoxy) dihydridaluminate.